PROCESS FOR MAKING TRIAZINE UV ABSORBERS USING LEWIS ACIDS AND REACTION PROMOTERS

ABSTRACT

It has been now surprisingly discovered after extensive research that 2-halo-4,6-bisaryl-1,3,5-triazine can be prepared with unprecedented selectivity, efficiency, mild conditions, and in high yield by the reaction of cyanuric halide with aromatics in the presence of at least one Lewis acid and at least one reaction promoter. This reaction is also unprecedently general as a variety of aromatics can be used to produce a wide selection of 2-halo-4,6-bisaryl-1,3,5-triazines. The novel approach includes the use of the reaction promoters in combination with at least one Lewis acid under certain reaction conditions to promote the formation of 2-halo-4,6-bisaryl-1,3,5-triazine compounds from cyanuric halide. Preferably, the Lewis acids and reaction promoters are combined to form a complex. 2-Halo-4,6-bisaryl-1,3,5-triazines are key intermediates for making 2-(2-oxyaryl)-4,6-bisaryl-1,3,5-triazine class of UV absorbers.